

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method of implementing optical channel access in a network comprising a plurality of distributed nodes and a master node, the method comprising:
requesting the optical channel access via radio-frequency (RF) messaging from one or more of the plurality of distributed nodes to the master node; [[and]]
granting, from the master node, the optical channel access to ~~at least another~~ one of the plurality of distributed nodes based on the RF messaging; and
establishing an optical channel by steering a first optical aperture to point towards the other
one of the plurality of distributed nodes from the one of the plurality of distributed nodes and
establishing the optical channel via the first optical aperture.
2. (currently amended) The method of claim 1, ~~wherein~~ where the optical channel comprises a free-space channel.
3. (currently amended) The method of claim 1, ~~wherein~~ where the optical channel comprises an optical fiber channel.
4. (currently amended) The method of claim 1, ~~wherein~~ where the plurality of distributed nodes comprise mobile nodes.
5. (currently amended) The method of claim 1, ~~wherein~~ where the network comprises an ad-hoc network.

6. (currently amended) The method of claim 1, further comprising:
denying, from the master node, optical channel access to ~~another~~ the other of the plurality of distributed nodes based on the RF messaging.
7. (currently amended) The method of claim 6, wherein where denying optical channel access comprises:
sending an access denial message via RF messaging from the master node.
8. (currently amended) The method of claim 1, wherein where granting optical channel access to the ~~at least~~ other one of the plurality of distributed nodes comprises:
sending an access granted message via RF messaging from the master node.
9. (original) The method of claim 7, further comprising:
subsequent to optical channel access denial, waiting a period of time before repeating the optical channel access request via RF messaging.
10. (currently amended) The method of claim 9, wherein where the period of time is derived from a retry time contained in the access denial message.
11. (currently amended) A system for implementing optical channel access in a network comprising a plurality of distributed nodes, comprising:

a first node of the plurality of distributed nodes configured to request the optical channel access with at least one other node via radio-frequency (RF) messaging;

a second node of the plurality of distributed nodes configured to grant or deny the requested optical channel access; and

a third node configured to establish the optical channel access to the first node based on whether the second node grants or denies the requested optical channel access, where establishing an optical channel comprises steering a first optical aperture to point towards the second node from the first node, where the optical channel is established via the first optical aperture.

12. (currently amended) A method of establishing an optical link between a first node and a second node in a network, wherein where at least one of the first and second nodes comprises a mobile node, the method comprising:

sending a request message to establish the optical link from the first node to a third node via electrical signals over an electrically transmissive medium;

receiving a request denied message or a request granted message from the third node via electrical signals over the electrically transmissive medium;

establishing an optical link between the first node and the second node based on the receipt of the request granted message, where establishing the optical link includes steering at least one steerable aperture to point towards at least one of the first or second nodes, where the optical link is established via the steerable aperture; and

transmitting data between the first node and the second node via optical signals over the optical link.

13. (currently amended) The method of claim 12, ~~wherein~~ where the sending a request message to establish the optical link comprises:

employing one or more time slots of a time division multiple access (TDMA) ring for sending the request message over the electrically transmissive medium.

14. (currently amended) The method of claim 12, ~~wherein~~ where the optical link comprises a free-space link.

15. (currently amended) The method of claim 12, ~~wherein~~ where the optical link comprises an optical fiber.

16. (currently amended) The method of claim 12, ~~wherein~~ where the request denied message includes a time period that the first node is to wait before sending another request message to the third node.

17. (currently amended) The method of claim 12, ~~wherein~~ where the electrical signals comprise radio-frequency (RF) signals and ~~wherein~~ where the electrically transmissive medium comprises free-space.

18. (currently amended) The method of claim 12, ~~wherein~~ where the electrically transmissive medium comprises a wired medium.

19. (canceled).

20. (currently amended) The method of claim [[19]] 12, wherein where the steerable aperture comprises a telescope.

21. (currently amended) A first node in a network, comprising:

a non-optical transceiver configured to:

send a request message to a master node via electrical signals over an electrically transmissive medium to request permission to establish an optical link from the first node to a second node, wherein where the second node comprises a mobile node, and

receive a request granted message or a request denied message from the master node; and

an optical subsystem configured to:

establish an optical link between the first node and the second node based on the receipt of the request granted message, where establishing the optical link includes steering a first optical aperture to point towards the second node from the first node and establishing the optical link via the first optical aperture, and

transmit data between the first node and the second node via optical signals over the optical link.

22. (currently amended) The node of claim 21, ~~wherein where~~ the non-optical transceiver is configured to:

employ one or more time slots of a time division multiple access (TDMA) ring for sending the request message to the master node over the electrically transmissive medium.

23. (currently amended) The node of claim 21, ~~wherein where~~ the optical link comprises a free-space link.

24. (currently amended) The node of claim 21, ~~wherein where~~ the optical link comprises an optical fiber.

25. (currently amended) The node of claim 21, ~~wherein where~~ the request denied message includes a time period that the first node is to wait before sending another request message to the master node.

26. (currently amended) The node of claim 21, ~~wherein where~~ the electrical signals comprise radio-frequency (RF) signals and ~~wherein where~~ the electrically transmissive medium comprises free-space.

27. (currently amended) The node of claim 21, ~~wherein where~~ the electrically transmissive medium comprises a wired medium.

28. (canceled).

29. (currently amended) The node of claim [[28]] 21, wherein where the first optical the steerable aperture comprises a telescope.

30. (currently amended) A method of coordinating communication between first and second nodes in a network via a master node, comprising:

arbitrating, at the master node, establishment of an optical channel between the first and second nodes by transmitting electrical signals over a non-optical channel to the master node from at least one of the first node or [[and]] second node [[nodes]];

granting, at the master node, the establishment of the optical channel between the first and second nodes based on the transmitted electrical signals over the non-optical channel; [[and]]

establishing the optical channel by steering a first optical aperture to point towards the second node from the first node and establishing the optical channel via the first optical aperture;
and

communicating via the established optical channel between the first and second nodes.

31. (currently amended) The method of claim 30, wherein where the first node comprises a mobile node.

32. (canceled).

33. (currently amended) The method of claim [[32]] 30, ~~wherein~~ where establishing the optical channel further comprises:

steering a second optical aperture to point towards the first node from the second node; and establishing the optical channel via the second optical aperture.

34. (currently amended) The method of claim 33, ~~wherein~~ where the first and second optical apertures comprise telescopes.

35. (currently amended) The method of claim 30, ~~wherein~~ where the non-optical channel comprises a radio-frequency (RF) channel.

36. (currently amended) The method of claim 30, ~~wherein~~ where the non-optical channel comprises a wired medium.

37. (currently amended) The method of claim 36, ~~wherein~~ where the wired medium employs at least one of Ethernet, Internet, [[and]] or ATM protocols.

38. (currently amended) The method of claim 30, ~~wherein~~ where the optical channel comprises free space.

39. (currently amended) The method of claim 30, ~~wherein~~ where the optical channel comprises an optical fiber.

40. (currently amended) A system for establishing an optical link with a mobile node in a network, comprising:

means for sending a request message to establish the optical link from a first node to a third node via electrical signals over an electrically transmissive medium;

means for receiving at least one of a request denied message [[and]] or a request granted message from the third node via electrical signals over the electrically transmissive medium;

means for establishing an optical link between the first node and the mobile node based on the receipt of the request granted message, where establishing the optical link includes steering a first optical aperture to point towards the second node from the first node and establishing the optical link via the first optical aperture; and

means for transmitting data between the first node and the mobile node via optical signals over the optical link.